CERTIFICATE

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Document Name: SAE J321: Fenders for Pneumatic-Tired Earthmoving Haulage Equipment

CFR Section(s): 29 CFR 1926.602(a)(5)

Standards Body: Society of Automotive Engineers

Official Incorporator:

THE EXECUTIVE DIRECTOR
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[redacted]

FENDERS FOR PNEUMATIC-TIRED EARTHMOVING HAULAGE EQUIPMENT—SAE J321a

SAE Recommended Practice

Report of Construction and Industrial Machinery Technical Committee approved November 1967 and last revised July 1970.

1. Objective—This SAE Recommended Practice is established to provide protection for the driver of the vehicle, the driver of another vehicle, or any other personnel in the immediate area of the vehicle from material thrown radially of a rotating tire.

2. Scope—This recommended practice establishes uniform tire coverage procedures and certain minimum structural requirements for fenders on pneumatic-tired earthmoving haulage equipment when the vehicle is in the normal straight-ahead position and whenever specified maximum travel speeds exceed 15 mph. Heavy construction equipment units covered by this recommended practice are trucks, scrapers, tractors, and trailing units.

3. Definitions

3.1 **Pneumatic Tire Fender**—A structure designed to provide protection per paragraph 1. The protection may be accomplished by the structure of the vehicle and/or attachments as well as by a fender.

3.2 **Fender Extension (Flap)**—A flap of substantial flexible material which may be engineered as a part of the fender.

4. General Requirements

4.1 **Fender**—The fender construction may be either rigid or flexible, shall cover at least the full width of the tire tread, and provide circumferential coverage as shown in Fig. 1.

In the case of Ackerman steer units, the fender should cover the maximum tire section (as defined by the Tire and Rim Association) in the normal straight-ahead position.

4.2 **Material**—The construction of the fender is to consist of a minimum thickness of 14 gage mild steel material or its equivalent. Equivalent materials should provide energy absorption at least equal to that provided by 14 gage mild steel permanently deformed but without rupture.

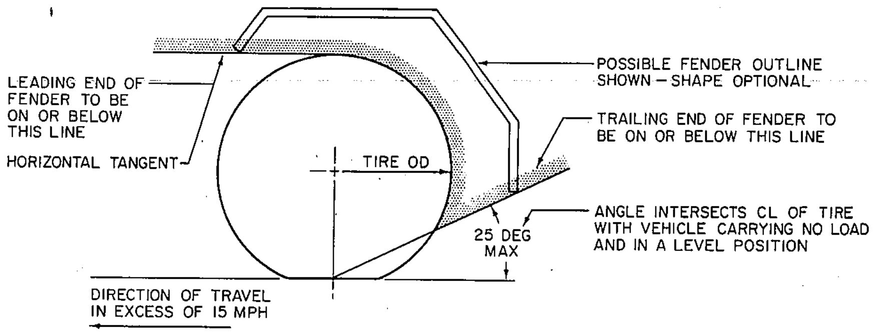
LEADING END OF FENDER TO BE ON OR BELOW THIS LINE
HORIZONTAL TANGENT
TIRE OD
POSSIBLE FENDER OUTLINE SHOWN—SHAPE OPTIONAL
TRAILING END OF FENDER TO BE ON OR BELOW THIS LINE
ANGLE INTERSECTS CL OF TIRE WITH VEHICLE CARRYING NO LOAD AND IN A LEVEL POSITION
25 DEG MAX
DIRECTION OF TRAVEL IN EXCESS OF 15 MPH

FIG. 1—TIRE COVERAGE REQUIREMENTS FOR VEHICLES WITH SPEEDS IN EXCESS OF 15 MPH

SHADED AREA INDICATES MINIMUM TIRE COVERAGE REQUIRED FOR ALL UNITS ON LEVEL SURFACE. SCRAPERS SHOULD BE IN THE NORMAL HAULING POSITION, ON LEVEL SURFACE.